

## Claims

1. A method for determining if an item is a fraudulent item, the method comprising the steps of:
  - 5 obtaining a first number associated with the item or item's packaging;
  - obtaining a second number associated with the item or item's packaging;
  - utilizing a cryptographic process and the first number to cryptographically verify the second number; and
  - determining the product's authenticity based on the verification.
- 10 2. The method of claim 1 wherein the step of obtaining the first number comprises the step of obtaining the first number from an RFID tag associated with the item or the item's packaging.
- 15 3. The method of claim 1 wherein the step of obtaining the second number comprises the step of determining a cryptographic signature printed on the item or the item's packaging.
- 20 4. The method of claim 1 wherein the step of utilizing the cryptographic process comprises the step of utilizing a public key and the first number to verify the second number.
- 25 5. The method of claim 1 wherein the step of determining the product's authenticity comprises the step of associating the product with an authentic product if the signature is verified, otherwise associating the product with a forged product.
6. A method of manufacturing a product in order to prevent forgery, the method comprising the steps of:
  - 30 obtaining a tag comprising a first number;
  - determining a second number utilizing the first number and a cryptographic process, wherein cryptographic verification of the second number insures the product's authenticity;

affixing the first number to either the product or the packaging associated with the product; and

affixing the second number to either the product or the packaging associated with the product.

5

7. The method of claim 6 wherein the step of obtaining the tag comprising the first number comprises the step of obtaining an RFID tag comprising a unique, or semi-unique unalterable number.

10

8. The method of claim 6 wherein the step of affixing the second number to either the product or the packaging associated with the product comprises the step of printing a cryptographic signature on the product or the product's packaging.

15

9. The method of claim 6 wherein the step of determining the second number utilizing the first number and a cryptographic process comprises the step of utilizing the first number and a private key to generate the second number.

20

10. A method comprising the steps of:

obtaining a first number from an RFID tag associated with an item;

obtaining a second number printed on the item or the item's packaging;

utilizing a public key and the first number to verify the second number; and

determining the item's authenticity based on the verification.

25

11. A method comprising the steps of:

obtaining an RFID tag comprising a first number;

utilizing a private key and the first number to create a second number such that cryptographic verification of the second number insures a product's authenticity; and

30

affixing the second number and the RFID tag to the item or the item's packaging.

12. An RFID tag comprising:

a first portion comprising product identification information; and  
a second portion comprising an unalterable random or semi-random number,  
wherein the unalterable random or semi-random number is utilized along with a  
cryptographic signature to verify a products authenticity.

5

13. The RFID tag of claim 12 wherein the first portion comprises a product code or a  
serial number or a manufacturer code.

14. The RFID tag of claim 12 further comprising the cryptographic signature.

10

15. A product scanner comprising:

an RF tag reader outputting contents of an RF tag;

a scanner outputting a cryptographic signature; and

15 logic circuitry having the contents of the RF tag and the cryptographic  
signature as an input and outputting information as to whether an item is a forgery.

16. The product scanner of claim 15 wherein the logic circuitry utilizes a public key  
and cryptographic operations to verify the cryptographic signature.

20 17. An apparatus comprising:

an RF reader outputting contents of an RF tag;

logic circuitry having the contents of the RF tag as an input and outputting a  
cryptographic signature; and

25 printing circuitry having the cryptographic signature as an input and printing  
the cryptographic signature upon an item or packaging.

18. The apparatus of claim 17 further comprising:

an RF writer outputting product information for the item to the RF tag.